UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,104	04/30/2001	Gavan Tredoux	A0840	1617

7590   07/10/2006

Patent Documentation Center
Xerox Corporation
Xerox Square 20th Floor
100 Clinton Ave. S.
Rochester, NY 14644

EXAMINER
BLAIR, DOUGLAS B

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *15 June 2006*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *9-16 and 18-23* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *9-16 and 18-23* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Claims 9-16 and 18-23 are currently pending in this application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 9-10, 13-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent Number 7,007,093 to Spicer et al. in view of U.S. Patent Number 6,457,054 to

Bakshi et al..

4.   As to claim 9, Spicer teaches a method of accessing an internal network device on a

protected network, the network including a security device, the method comprising: storing data

addressed to the internal network device in an external proxy server (col. 4, lines 4-24, the Proxy

Server 114 stores data addressed to the Network Resources 104.); maintaining a proxy agent on

the protected network, the proxy agent executing the step of: polling the external proxy server for

data addressed to the internal network device, where polling includes: connecting to the external

proxy server to check for pending traffic (col. 4, lines 4-24, the Polling Server 116 polls the

Proxy Server 114); receiving from the external proxy server when the external proxy server has

received data from a client (col. 4, lines 4-24, Polling Server receives client request for Network

Resources 104); forwarding to the internal network device any data on the external proxy server

and addressed to the internal network device; and forwarding to the external proxy server any data addressed to an external device in communication with the external proxy server (col. 4, lines 4-24, the Network Resources 104 are disclosed as being printers and file servers and other similar devices which inherently send responses); however Spicer does not explicitly teach the external proxy server sending a stream of spurious bytes if there is nothing pending for the internal network device.

Bakshi teaches a method of receiving a stream of spurious bytes from a proxy server if there is nothing pending for the network device (col. 3, lines 46-67).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of Spicer regarding communication through a private network with the teachings of Bakshi regarding the transmission of spurious bytes because spurious bytes keep communication channels open and thus reduce latency that would be required to establish a connection (Bakshi, col. 3, lines 46-67).

5.   As to claim 10, Spicer teaches a method of polling the external server at regular intervals (col. 4, lines 4-24).

6.   As to claim 13, Bakshi teaches a method of multiplexing multiple requests from the proxy agent to proxy server through the same connection (col. 3, line 46-67).

7.   As to claim 14, Spicer teaches a method of maintaining by the proxy server maps between local TCP/IP ports of the proxy server and private IP addresses on the protected network, the maps being distinguished by an identity of the proxy agent used to access them (col. 4, lines 4-44).

8.   As to claim 15, Spicer teaches a method of publishing by each proxy agent a list of

addresses it can reach to the external proxy server, the external proxy server using this list to

create a respective map between local ports and proxy agents (col. 4, line 55-col. 5, line 15).

9.   As to claim 20, Spicer teaches a method of providing network administrators control over

the system including granting administrators the ability to allow and deny entry into the

protected network on a per session basis (col. 4, line 55-col. 5, line 15).

10.   Claim 11-12, 16, 20-21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent Number 7,007,093 to Spicer et al. in view of U.S. Patent Number 6,457,054 to

Bakshi et al. in further view of U.S. Patent Number 6,510,464 to Grantges Jr. et al..

11.   As to claim 11, the Spicer-Bakshi combination does not explicitly teach the use of two

separate protocols to inside and outside the private network.

        Grantges Jr. teaches a method of communicating by an internal network device with a

proxy using a first network protocol and an external network device communicating with the

proxy using a second protocol (Figure 7).

        It would have been obvious to one of ordinary skill in the Computer Networking art at the

time of the invention to combine the teachings of the Spicer-Bakshi combination regarding

communication to devices on a private network with the teachings of Grantges, Jr. regarding the

use of different protocols inside and outside of the private network because some connections

may be required to be secure.

12.   As to claim 12, Grantges Jr. teaches a method wherein data addressed to an internal

network device using a second network protocol is transmitted to the internal device using the

first protocol so that the second protocol is carried to the internal network device inside the first

network protocol (HTTP traffic is encrypted using HTTPS).

13.   As to claim 16, the Spicer-Bakshi combination does not explicitly teach ensuring cookie

delivery.

Grantges, Jr. teaches a proxy server that ensures proper cookie routing (col. 11, line 63-

col. 12, line 10).

It would have been obvious to one of ordinary skill in the Computer Networking art at the

time of the invention to combine the teachings of the Spicer-Bakshi combination regarding a

system for communicating with private network devices with the teachings of Grantges, Jr.

regarding the routing of cookies because cookies are commonly communicated during HTTP

communication.

14.   As to claim 18 and 19, they are rejected for the same reason as claims 11 and 12.

15.   As to claim 20, Grantges Jr. teaches the use of X.509 certificates (Fig 7).

16.   As to claim 21, the Spicer-Bakshi combination teaches the method of claim 9 however

the Spicer-Bakshi combination does not explicitly teach rewriting cookies with unique

identifiers.

Grantges Jr. teaches rewriting cookies with unique identifiers to prevent inadvertent

transmission of private information to an incorrect recipient on the protected network (col. 9, line

54-col. 10, line 5).

It would have been obvious to one of ordinary skill in the Computer Networking art at the

time of the invention to combine the teachings of the Spicer-Bakshi combination regarding a

system for communicating with private network devices with the teachings of Grantges, Jr.

regarding the routing of cookies because cookies are commonly communicated during HTTP

communication.

17.   As to claim 23, the Spicer-Bakshi combination teaches the method of claim 9 however

the Spicer-Bakshi combination does not explicitly teach granting a key for access.

Grantges teaches a method wherein access is conferred by granting a key with a

predetermined life span (col. 7, lines 63-col. 8, line 14).

It would have been obvious to one of ordinary skill in the Computer Networking art at the

time of the invention to combine the teachings of the Spicer-Bakshi combination regarding a

system for communicating with private network devices with the teachings of Grantges, Jr.

regarding granting a key because keys are commonly used to identify requesters.

Response to Arguments

18.   Applicant's arguments filed 6/15/06 have been fully considered but they are not

persuasive. The applicant argues that Spicer makes no mention of "the polling server forwarding

data addressed to an external device to the external proxy server". However, the examiner points

out that the Network Resources 104 in Figure 1 of Spicer are disclosed as being printers and file

servers. Most modern printers send their clients status information to show the status of client's

print job. Likewise it would be pointless to access a file server and not expect a response, for

example, if a user requested a file, the user would want the requested file returned. The

applicant's suggestion that Spicer does not allow any responses from the Network Resources to

the clients using Network Terminals via the Proxy Server completely ignores the purpose of

Spicer's invention.

19.   So looking specifically at Spicer's invention with respect to Figure 1, let's assume that

the Network Resource 104 is a printer. Network Terminal 200 would submit a print job through

Communications Network 112 to Proxy Server 114. The print job would then be retrieved by

Polling Server 116 and sent to Printer Server 118 and then sent to the printer (Network Resource

104). The printer would then return the status of the print job through Printer Server 118 and

Polling Server 116 to the Proxy Server 114. Notice Figure 1 shows arrows indicating the 2-way

communication between the Proxy Server 114 and the Polling Server 116.

Conclusion

20.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

21.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Douglas B. Blair whose telephone number is 571-272-3893. The

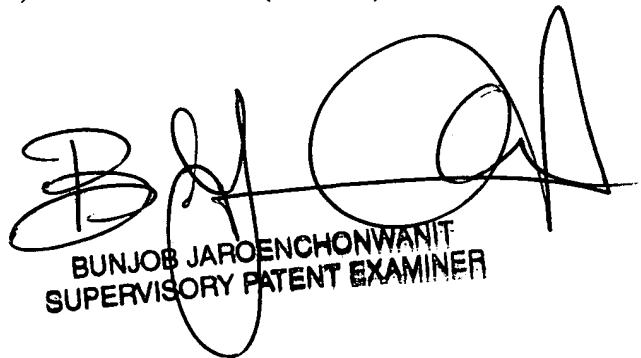examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Douglas Blair

DBB

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER